

1-25. (CANCELED)

26. (NEW) A multi-stage transmission of planetary structure, in particular for a motor vehicle, which comprises a drive input shaft and a drive output shaft arranged in a housing, three single-web planetary gearset assemblies (P2, P2, P3), at least six rotating shafts (0, 1, 2, 3, 4, 5, 6) and at least five shift elements (03, 04, 13, 16, 45) which consist of one or more of brakes and clutches, whose selective engagement two at a time produces various transmission ratios between the drive input and the drive output shafts so that six forward gears and one reverse gear can be engaged, wherein the drive input shaft (1) is connected directly to a solar gearwheel of a first planetary gearset assembly (P1), an annular gearwheel of the first planetary gearset assembly (P1) is in rotationally fixed connection with the housing, a drive output takes place via a second shaft (2) which is connected to an annular gearwheel of a second planetary gearset assembly (P2) and to a web of a third planetary gearset assembly (P3), a third shaft (3) is permanently connected to a web of the second planetary gearset assembly (P2) and to an annular gearwheel of the third planetary gearset assembly (P3), a fourth shaft (4) is permanently connected to a solar gearwheel of the second planetary gearset assembly (P2), a fifth shaft (5) is permanently connected to a web of the first planetary gearset assembly (P1), and a sixth shaft (6) is permanently connected to a solar gearwheel of the third planetary gearset assembly (P3), such that the third shaft (3) can be coupled to the housing by a first brake (03), the fourth shaft (4) can be coupled to the housing by a second brake (04), a first clutch (13) connects the drive input shaft (1) and the third shaft (3) to or releases them from one another, a second clutch (16) connects the drive input shaft (1) and sixth shaft (6) to or releases them from one another, and a third clutch (45) connects the fourth and fifth shafts (4, 5) to or releases them from one another.

27. (NEW) A multi-stage transmission of planetary structure, in particular for a motor vehicle, which comprises a drive input shaft and a drive output shaft arranged in a housing, three single-web planetary gearset assemblies (P2, P2, P3), at least six rotating shafts (0, 1, 2, 3, 4, 5, 6) and at least five shift elements (03, 04, 13, 15, 16) which consist of one or more of brakes and clutches, whose selective engagement two at a time produces various transmission ratios between the drive input and the drive output shafts so that six forward gears and one reverse gear can be engaged, wherein the drive input shaft (1) is connected via the fourth clutch (15) to a solar gearwheel of

a first planetary gearset assembly (P1), an annular gearwheel of the first planetary gearset assembly (P1) is in rotationally fixed connection with a housing, a drive output takes place via a second shaft (2) which is connected to an annular gearwheel of a second planetary gearset assembly (P2) and to a web of a third planetary gearset assembly (P3), a third shaft (3) is permanently connected to a web of the second planetary gearset assembly (P2) and to an annular gearwheel of the third planetary gearset assembly (P3), a fourth shaft (4) is permanently connected to a solar gearwheel of the second planetary gearset assembly (P2) and to a web of the first planetary gearset assembly (P1), a fifth shaft (5) is permanently connected to the solar gearwheel of the first planetary gearset assembly (P1), and a sixth shaft (6) is permanently connected to a solar gearwheel of the third planetary gearset assembly (P3), such that the third shaft (3) can be coupled to the housing by a first brake (03), the fourth shaft (4) can be coupled to the housing by a fourth brake (04), a first clutch (13) connects the drive input shaft (1) and third shaft (3) to or releases them from one another, a second clutch (16) connects the drive input shaft (1) and the sixth shaft (6) to or releases them from one another, and a third clutch (15) connects the shafts drive input shaft (1) and the fifth shaft (5) to or releases them from one another.

28. (NEW) A multi-stage transmission of planetary structure, in particular for a motor vehicle, which comprises a drive input shaft and a drive output shaft arranged in a housing, three single-web planetary gearset assemblies (P2, P2, P3), at least six rotating shafts (0, 1, 2, 3, 4, 5, 6) and at least five shift elements (03, 04, 05, 13, 16) which consist of one or more of brakes and clutches, whose selective engagement two at a time produces various transmission ratios between the drive input and the drive output shafts so that six forward gears and one reverse gear can be engaged, wherein the drive input shaft (1) is directly connected to a solar gearwheel of a first planetary gearset assembly (P1), an annular gearwheel of the first planetary gearset assembly (P1) can be one of, put in rotationally fixed connection with, or released from the housing by a third brake (05), drive output takes place via a second shaft (2) which is connected to an annular gearwheel of a second planetary gearset assembly (P2) and to a web of a third planetary gearset assembly (P3), a third shaft (3) is permanently connected to a web of the second planetary gearset assembly (P2) and to an annular gearwheel of the third planetary gearset assembly (P3), a fourth shaft (4) is permanently connected to a solar gearwheel of the second planetary gearset

assembly (P2) and to a web of the first planetary gearset assembly (P1), a fifth shaft (5) is permanently connected to the annular gearwheel of the first planetary gearset assembly (P1), and a sixth shaft (6) is permanently connected to a solar gearwheel of the third planetary gearset assembly (P3), such that the third shaft (3) can be coupled to the housing by a first brake (03), the fourth shaft (4) can be coupled to the housing by a second brake (04), a first clutch (13) connects the input drive shaft (1) and the third shaft (3) to or releases them from one another, a second clutch (16) connects the input drive shaft (1) and the sixth shaft (6) to or releases them from one another, and the third brake (05) connects the fifth shaft (5) to or releases it from the housing.

29. (NEW) The multi-stage transmission according to claim 26, wherein the planetary gearsets (P1, P2, P3) are made as negative planetary gearset assemblies.

30. (NEW) The multi-stage transmission according to claim 26, wherein the fixed connection of the annular gearwheel of the first planetary gearset (P1) to the housing can be replaced by a releasable connection by means of a brake.

31. (NEW) The multi-stage transmission according to claim 30, wherein one of an electric machine or another suitable additional drive machine can be arranged on a seventh shaft (0) associated with the housing.

32. (NEW) The multi-stage transmission according to claim 26, wherein freewheels can be inserted at any suitable point of the transmission.

33. (NEW) The multi-stage transmission according to claim 32, wherein the freewheels can be inserted between the first, second, third, fourth, fifth, sixth and seventh shafts (0, 1, 2, 3, 4, 5, 6) and the housing.

34. (NEW) The multi-stage transmission according to claim 26, wherein the drive input and the drive output are provided on a same side of the housing.

35. (NEW) The multi-stage transmission according to claim 26, wherein the drive input and drive output are provided on opposite sides of the housing.

36. (NEW) The multi-stage transmission according to claim 26, wherein one or more of an axle differential and a transfer differential is arranged on one of a drive input side or on a drive output side of the housing.

37. (NEW) The multi-stage transmission according to claim 26, wherein the drive input shaft (1) can be disengaged from a drive engine by a coupling element.

38. (NEW) The multi-stage transmission according to claim 37, wherein the coupling element is one of a hydrodynamic converter, a hydraulic clutch, a dry starter clutch, a liquid starter clutch, a magnetic powder clutch and a centrifugal force clutch.

39. (NEW) The multi-stage transmission according to claim 26, wherein in the force-flow direction an external starting element is arranged after the housing, in particular according to Claim 13, such that the drive input shaft (1) is in fixed connection with the crankshaft of the drive engine.

40. (NEW) The multi-stage transmission according to claim 26, wherein starting takes place by means of a shift element of the transmission, and the crankshaft of the engine is permanently connected to the drive input shaft (1).

41. (NEW) The multi-stage transmission according to claim 40, wherein the second brake (04), the first brake (03) or the clutch (16) can be used as the shift element.

42. (NEW) The multi-stage transmission according to claim 26, wherein a torsional oscillation damper can be arranged between the engine and the transmission.

43. (NEW) The multi-stage transmission according to claim 26, wherein a wear-free brake can be arranged on one or more of the rotating shafts.

44. (NEW) The multi-stage transmission according to claim 43, wherein the wear-free brake can be arranged on one of the drive input shaft (1) or the drive output shaft (2).

45. (NEW) The multi-stage transmission according to claim 26, wherein an auxiliary drive output can be arranged on one or more of the rotating shafts to drive additional aggregates.

46. (NEW) The multi-stage transmission according to claim 45, wherein the auxiliary drive output can be arranged on one of the drive input shaft (1) or on the drive output shaft (2).

47. (NEW) The multi-stage transmission according to claim 26, wherein the shift elements are formed as one of change-under-load clutches or brakes.

48. (NEW) The multi-stage transmission according to claim 47, wherein the shift elements are one or more of disk clutches, band brakes and conical clutches.

49. (NEW) The multi-stage transmission according to claim 26, wherein the shift elements are one or more of form-enclosing brakes and clutches.

50. (NEW) The multi-stage transmission according to claim 26, wherein an electric machine can be connected to any of the rotating shafts as one or more of a generator and as an additional drive machine.